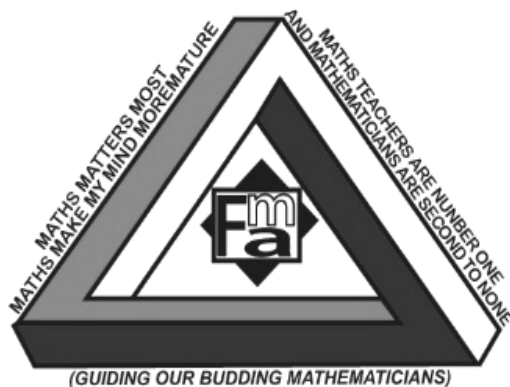


FIJI MATHEMATICS ASSOCIATION



FIJI MATHEMATICS COMPETITION (FMC) YEAR 7

Thursday 6th September 2018

Time Allowed: 1 Hour 15 minutes

Note:

Calculators are NOT permitted.

Diagrams are NOT drawn to scale.

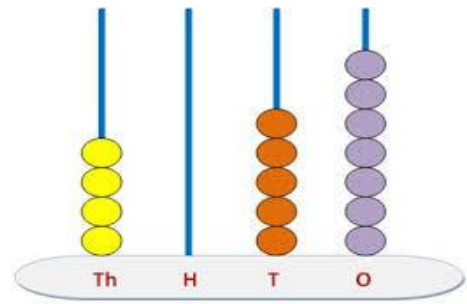
Instructions:

1. Print your **Name** in the space provided and Shade the circle corresponding to your **Year** on the answer sheet.
2. Shade the circle corresponding to your answer with dark pencil on the answer sheet provided.
3. Multiple answers **will not be** accepted.

Year 7

1. What number is represented in the abacus on the right

A. Four thousand Zero hundred fifty seven
 B. Forty thousand fifty seven
 C. Four Zero thousand fifty seven
 D. Four thousand fifty seven
 E. Four thousand fifty point seven



2. What is the highest common factor (HCF) of 24 and 36 is

A. 18 B. 12 C. 6 D. 9 E. 4

3. What is the sum of the first 5 prime numbers?

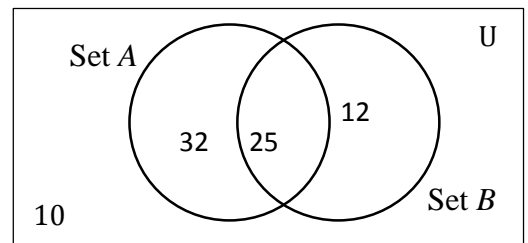
A. 14 B. 18 C. 15 D. 26 E. 28

4. Evaluate: n^2 , Where n is equal to 17.

A. 289 B. 0 C. 17 D. 34 E. 19

5. The Venn diagram shows the results of a survey taken for number of student who like soccer and rugby. Where Set A represents Rugby and Set B represents Soccer. How many students do not like soccer

A. 35 B. 10 C. 42
 D. 47 E. 67



6. Evaluate: $2(45+3) - (140-6)$

A. -44 B. -38 C. -50 D. 232 E. 50

7. The sum of three consecutive numbers is 306. What is the value of largest of the three numbers?

A. 100 B. 101 C. 102 D. 103 E. 104

8. Rajesh bought 2 large pizza for a party. During the party $\frac{7}{10}$ of the first pizza and $\frac{9}{12}$ of the second pizza was eaten. What fraction of the 2 pizzas was eaten?

A. $1\frac{9}{20}$ B. $8\frac{27}{60}$ C. $\frac{9}{20}$ D. $1\frac{87}{60}$ E. $\frac{5}{12}$

9. A soccer team had 13liters of water. During half time the players used 70% of the water. How much water is remaining?

A. 7.1l B. 7.9l C. 3900ml D. 9.1l E. 900ml

10. Which set shows the numbers arranged in ascending order?

A. {0.4,0.55,0.83,1.3,4} B. {2.3,1.25,1.3,0.9,0.3} C. {0.4,0.6,0.83,5.2,4.8}
 D. {2.3,1.55,1.3,0.9,1} E. {2.3,1.7,1.3,0.9,0.3}

11. $\frac{26}{40}$ written in decimal form is

A. 1.54 B. 0.65 C. 0.065 D. 0.154 E. 6.5

12. What is the next number in the sequence? 61,50,40,31,.....

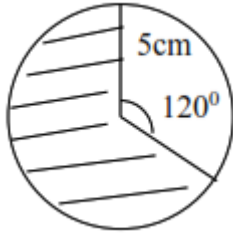
A. 20 B. 21 C. 22 D. 23 E. 24

Year 7

13. Samu thought of a number. He multiplied it by 3 after which he added 15 and got the result as 432. What number did Samu think of?

A. 139 B. 149 C. 134 D. 129 E. 417

14. Which expression gives the area of the shaded region below?



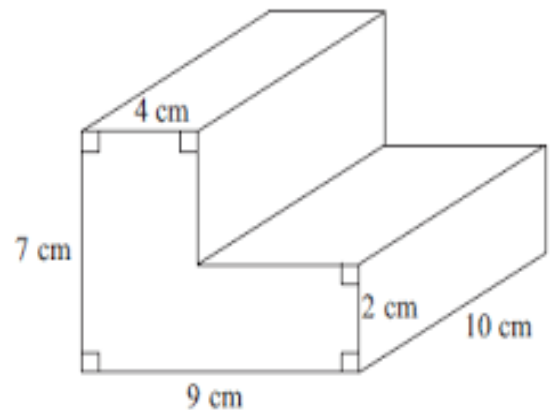
- A. $25 \times \pi \times \frac{120}{360}$ D. $10 \times \pi \times \frac{240}{360}$
 B. $25 \times \pi \times \frac{240}{360}$ E. $15 \times \pi \times \frac{120}{360}$
 C. $5 \times \pi \times \frac{240}{360}$

15. Convert 5.892 kilometres into millimetre

A. 5892 B. 58920 C. 589200
 D. 0.0005892 E. 5892000

16. Calculate the volume of the given shape?

A. 380cm^2 B. 280mm^2 C. 38cm^2
 D. 180cm^2 E. 380mm^2



17. Shafil bought the groceries as stated in the table.

What is the total mass of his shopping?

Item	Mass
Flour	10kg
Potatoes	2.8kg
Onion	3 and half kg
Milk	900grams

- A. 17.2g
 B. 17.02kg
 C. 1720g
 D. 17200g
 E. 17020g

18. Last night Ravi studied for FMC and before going to bed he saw the clock as illustrated. At what time did he go to bed? (Give answer in 24hour format.)

A. 12:45am B. 12:45pm C. 00:45 hour
 D. 01:45 hour E. 12:45hour



19. How many days are there from the beginning of year 2012 to the end of year 2017?

A. 1825 B. 2190 C. 2191 D. 2192 E. 1827

20. Fiji Airways flight FJ410 left Nadi International Airport at 11:15am and travelled a distance of 2151km to reach Auckland Airport at 2:15pm the same day. What was the average speed of the aircraft?

A. 537.75 km/h B. 717 km/h C. 715 km/h D. 537 km/h E. 435 km/h

21. James had \$12894 in a BSP savings account and \$9867 in Westpac savings account. After retirement he went on a trip around Europe. He used 26% of his savings. How much of James saving is left?

A. \$16843.14 B. \$5917.86 C. \$3352.44 D. \$3027 E. \$5999.86

22. Which number is midway between 1.5 and 5.4?

A. 2.95 B. 1.95 C. 3.45 D. 4.5 E. 3.5

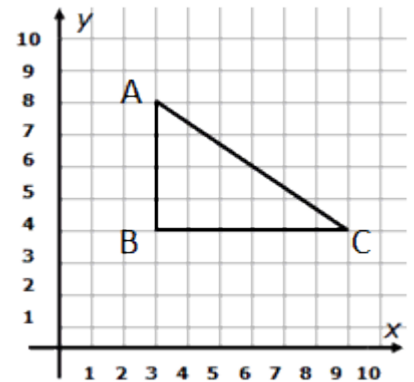
Year 7

23. Mike made a fix term deposit of \$5500 with HFC Bank for a period of 5 year. He gets a fixed interest of 3.25% per 6 months on the principal amount. What will be the total amount paid to Mike at the end of the 5 year term?

A. \$1787.50 B. \$893.75 C. \$6393.75
D. \$5678.75 E. \$7287.50

24. A triangle ABC is drawn on the Cartesian plane as shown. It is then Reflected in the Y axis to form a new triangle. What will be the new Coordinates of point A?

A. (-3,-8) B. (-8,3) C. (-8,-3)
D. (3,8) E. (-3,8)

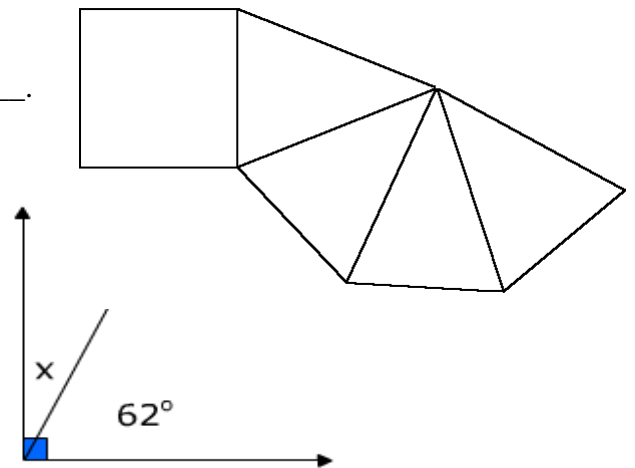


25. Calculate the volume of a cone with radius 7cm and height 30cm. (Use $\pi = \frac{22}{7}$)

A. 4620cm^3 B. 220cm^3 C. 1540cm^3
D. 1550cm^3 E. 1560cm^3

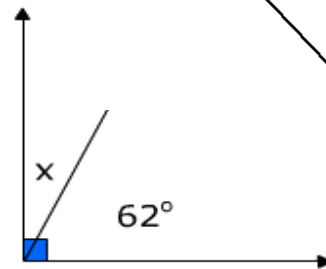
26. The diagram on the right shows the net of a _____.

A. Cone B. Square Prism
C. Triangular Prism D. Triangular Pyramid
E. Square Pyramid



27. What is the value of angle X ?

A. 28° B. 128° C. 298°
D. 118° E. 38°



28. A 24 hour café uses an average of 637liters of milk per week. How much milk was used during the year 2017?

A. 22548 l B. 22611.7 l C. 33675.4 l D. 33215 l E. 32821 l

29. A farmer has 3450m^2 of land. He planted cabbage in $\frac{1}{6}$ and carrot in $\frac{1}{2}$ of the land. In the remainder of the land he planted corn. How much area was used to plant corn?

A. 1150m^2 B. 1437.5m^2 C. 2012.5m^2 D. 862.5m^2 E. 2464.29m^2

30. Daniel took a survey of the number of pets in his neighbourhood and drew a pie chart. What angle of the pie chart is represented by cats?

A. 244° B. 160° C. 116°
D. 118° E. 129°

